In the Claims

1. (currently amended) A system for summarizing multimedia, comprising:

~~means~~ storage for storing a compressed multimedia file partitioned into a sequence of segments, and a metadata file including index information and an importance level information for each segment in the sequence, the importance level being continuous over closed interval;

~~means~~ unit for selecting an importance level threshold in the closed interval; and

~~means~~ unit for reproducing, using the index information, only segments of the multimedia having a particular importance level greater than the importance level threshold.

2. (original) The system of claim 1, in which the sequence of the segments is temporal, and the index information includes a start time and an end time of each segment.

3. (original) The system of claim 1, in which the sequence of the segments is temporal, and the index information includes a frame number.

4. (original) The system of claim1, in which the multimedia is compressed.

5. (original) The system of claim 1, in which the multimedia includes video and audio signals.

6. (original) The system of claim 1, in which the importance level is contained in a file that is distinct from the multimedia file.

7. (original) The system of claim 1, in which the importance level is real number.

8. (original) The system of claim1, in which the multimedia comprises text and binary data.

9. (original) The system of claim 1, in which the importance level threshold is expressed as range of real number values.

10. (original) The system of claim 1, in which the importance level threshold is expressed as a plurality of ranges of real number values.

11. (original) The system of claim 1, in which the importance level threshold is viewer selected.

12. (original) The system of claim 1, in which the importance level threshold is selected automatically.

13. (original) The system of claim 1, in which only segments of the multimedia having a particular importance level less than the importance level threshold are reproduced.

14. (currently amended) The system of claim 1, in which the multimedia file includes a plurality of programs, and further comprising:

~~means~~ unit for reproducing only segments of the plurality of programs having a particular importance greater than the importance level threshold.

15. (currently amended) The system of claim 1, further comprising:

~~means~~ unit for specifying an abstraction ratio, the abstraction ratio representing the importance level threshold.

16. (currently amended) The system of claim 1, in which the segments are ordered according to the importance level, and further comprising:

~~means~~ unit for reproducing the segments in a descending order of the importance level.

17. (original) The system of claim 1, in which the reproducing terminates after a predetermined amount of time.

18. (currently amended) The system of claim 1, further comprising:

~~means~~ recorder for recording the compressed multimedia and the metadata file on the ~~means for storing~~ storage.

19. (original) The system of claim 1, in which only segments greater than a time threshold are reproduced.

20. (original) The system of claim 19, in which the segments shorter than the time threshold are extended to satisfy the time threshold.

21. (original) The system of claim 20, in which the extending is additive.

22. (original) The system of claim 20, in which the extending is multiplicative.

23. (currently amended) The system of claim 1, further comprising:

~~means~~ unit for searching the multimedia to locate a particular segment to begin the reproducing.

24. (currently amended) The system of claim 1, in which the ~~means for storing~~ storage is an optical storage disk.

25. (currently amended) The system of claim 1, in which the ~~means for storing~~ storage is a magnetic storage device.

26. (currently amended) The system of claim 1, further comprising:

~~means~~ unit for extracting the importance level and the indexing information while decoding the multimedia file.

27. (original) A method for summarizing multimedia, comprising:

storing a compressed multimedia file partitioned into a sequence of segments;

storing a metadata file including index information and an importance level for each segment in the sequence, the importance level being continuous over as closed interval;

selecting an importance level threshold in the closed interval; and

reproducing, using the index information, only segments of the multimedia having a particular importance level greater than the importance level threshold.

28. (original) The method of claim 27, in which the sequence of the segments is temporal, and the index information includes a start time and an end time of each segment.

29. (original) The method of claim 27, in which the sequence of the segments is

temporal, and the index information includes a frame number.

30. (original) The method of claim 27, further comprising:

compressing the multimedia.

31. (original) The method of claim 27, in which the multimedia includes video and audio signals.

32. (original) The method of claim 27, in which the importance level is contained in a file that is distinct from the multimedia file.

33. (original) The method of claim 27, in which the importance level is real number.

34. (original) The method of claim 27, in which the multimedia comprises multiplexed video and audio signals.

35. (original) The method of claim 27, in which the importance level threshold is expressed as a range of real number values.

36. (original) The method of claim 27, in which the importance level threshold is expressed as a plurality of ranges of real number values.

37. (original) The method of claim 27, in which the importance level threshold is viewer selected.

38. (original) The method of claim 27, in which the importance level threshold is

selected automatically.

39. (original) The method of claim 27, in which only segments of the multimedia having a particular importance level less than the importance level threshold are reproduced.

40. (original) The method of claim 27, in which the multimedia file includes a plurality of programs, and further comprising:

reproducing only segments of the plurality of programs having a particular importance level greater than the importance level threshold.

41. (original) The method of claim 27, further comprising:

specifying an abstraction ratio, the abstraction ratio representing the importance level threshold.

42. (original) The method of claim 27, in which the segments are ordered according to the importance level, and further comprising:

reproducing the segments in a descending order of the importance level.

43. (original) The method of claim 27, in which the reproducing terminates after a predetermined amount of time.

44. (currently amended) The method of claim 27, further comprising:

recording the compressed multimedia and the metadata file on the ~~means for storing~~ storage.

45. (original) The method of claim 27, in which only segments greater than a time

threshold are reproduced.

46. (original) The method of claim 45, in which the segments shorter than the time threshold are extended to satisfy the time threshold.

47. (original) The method of claim 46, in which the extending is additive.

48. (original) The method of claim46, in which the extending is multiplicative.

49. (original) The method of claim 27, further comprising:

searching the multimedia to locate a particular segment to begin the reproducing.

50. (original) The method of claim 27, in which the multimedia file and the metadata file are stored on an optical storage disk.

51. (original) The method of claim 27, in which the multimedia file and the metadata file are stored on a magnetic storage device.

52. (original) The method of claim 27, further comprising:

extracting the importance level and the indexing information while decoding the multimedia file.

53. (original) A computer readable medium, comprising:

a compressed multimedia file partitioned into a sequence of segments; and

a metadata file including index information and an importance level information for each segment in the sequence, the importance information being

continuous over a closed interval, the compressed multimedia file and the metadata file, when read by a computer using the index information, causes the computer to reproduced only segments of the multimedia having a particular importance level greater than a importance level threshold.

54. (original) The medium of claim 53, in which the sequence of the segments is temporal, and the index information includes a start time and an end time of each segment.

55. (original) The medium of claim 53, in which the sequence of the segments is temporal, and the index information includes a frame number.

56. (original) The medium of claim 53, in which the multimedia is compressed.

57. (original) The medium of claim 53, in which the multimedia includes video and audio.

58. (original) The medium of claim 53, in which the importance level information is contained in a file that is distinct from the multimedia file.

59. (original) The medium of claim 53, in which the importance level is real number.

60. (original) The medium of claim 53, in which the multimedia comprises multiplexed video and audio signals.

61. (original) The medium of claim 53, in which the segments are ordered

according to the importance level.

62. (original) The medium of claim 53 is an optical storage disk.

63. (original) The medium of claim 53 is a magnetic storage device.

64. (original) The medium of claim 53, further comprising:
flags for indicating a validity of the metadata.

65. (New) A disc recorder, comprising:
recorder for recording an inputted video signal or audio signal on a predetermined recording medium;
unit for partitioning the video signal or audio signal into predetermined segments to extract a feature from the video signal or a feature from the audio signal for each segment; and
unit for generating metadata including feature data corresponding to the features and start positions of the segments,
wherein the recorder records the metadata on the recording medium in association with the segments.

66. (New) The disc recorder according to claim 65, in which the predetermined recording medium further comprises:
a first directory for storing files corresponding to the metadata; and
a second directory for storing files corresponding to the segments.

67. The disc recorder according to claim 65, further comprising:
comparator for performing comparison between a value corresponding to

the feature data and a predetermined threshold;

unit for searching the segments recorded on the recording medium for a segment that matches a result from the comparison; and

unit for reproducing video or audio corresponding to the segment retrieved by the unit for searching.

68. (New) The disc recorder according to claim 67, in which the unit for searching searches for a segment that corresponds to the feature data having a value larger than the threshold as a result of the comparison by the comparator.

69. (New) The disc recorder according to claim 67, in which the comparator performs comparison between a reproducing time of the video corresponding to the segment retrieved by the unit for searching and a predetermined threshold; and

in a case where the reproducing time has a value smaller than the predetermined threshold as a result of the comparison by the comparator, the apparatus for browsing video does not reproduce the video or audio corresponding to the retrieved segment.

70. (New) The disc recorder according to claim 67, in which the comparator performs comparison between a reproducing time of the video corresponding to the segment retrieved by the searcher and a predetermined threshold; and

in a case where the reproducing time has a value smaller than the predetermined threshold as a result of the comparison by the comparator, the apparatus for browsing video adjusts the reproducing time such that the reproducing time of video or audio reproduced by including the video or audio corresponding to the segment becomes equal to or larger than the predetermined threshold.

71. (New) A method for recording, comprising:

recording an inputted video signal or audio signal on a predetermined recording medium;

partitioning the video signal or audio signal into predetermined segments to extract a feature from the video signal or a feature from the audio signal for each segment;

generating metadata including feature data corresponding to the features and start positions of the segments; and

upon the recording, recording the metadata on the recording medium in association with the segments.

72. (New) The method according to claim 71, further comprising:

comparing a value corresponding to the feature data to a predetermined threshold;

searching the segments recorded on recording medium for a segment that matches a result from the comparing; and

reproducing video or audio corresponding to the segment retrieved by the searching.

73. (New) A disc player comprising:

unit for extracting the feature data from the metadata recorded on a recording medium ;

comparator for performing a comparison between a value corresponding to the feature data and a predetermined threshold;

unit for searching among the segments recorded on the recording medium for a

segment corresponding to a result of the comparison; and

unit for reproducing video or audio corresponding to the segment searched by the unit for searching.

74. (New) The disc player according to claim 73, wherein the unit for searching searches for the segment that corresponds to the feature data having a value larger than the predetermined threshold.

75. (New) The disc player according to claim 73, wherein:

the comparator performs comparison between a reproducing time of the video corresponding to the segment searched by the unit for searching and another predetermined threshold; and

in a case where the reproducing time has a value smaller than said another predetermined threshold, the disc player does not reproduces the video or audio corresponding to the searched segment.

76. (New) The disc player according to claim 73, wherein:

the comparator performs comparison between a reproducing time of the video corresponding to the segment searched by the searcher and another predetermined threshold; and

in a case where the reproducing time has a value smaller than said another predetermined threshold, the disc player adjusts the reproducing time to become equal to or larger than said another predetermined threshold.

77. (New) A method for playing video, comprising:

extracting the feature data from the metadata recorded on a recording medium;

performing comparison between a value corresponding to the feature data and a

predetermined threshold;

searching among the segments recorded on the recording medium for a segment corresponding to a result of the comparison; and

reproducing video or audio corresponding to the segment searched by the searching.

78. (New) A recording medium comprising:

a first directory for storing files corresponding to a segment which is generated by partitioning an inputted audio signal and an inputted video signal;

a second directory for storing files corresponding to a metadata which is generated based on the inputted audio signal or the inputted video signal, and corresponding to the each segment.